

Nanocellulose 2015 Round Table of Ideas - Program

VENUE: Faculty of Chemistry, University of Vienna, Währinger Straße 42, Vienna, Austria

Saturday 26th September 2015

18:00 - 22:00 **WELCOME MIXER**, Faculty of Chemistry, University of Vienna

Sunday 27th September 2015

09:30 - 09:45 **WELCOME ADDRESS AND OPENING REMARKS**
Alexander Bismarck, Koon-Yang Lee, Jonny Blaker, Eero Kontturi and Andreas Mautner

PROFESSOR FORUM 1 - FROM CHEMISTRY OVER PHYSICS TO MATERIALS
Chairs: Alexander Bismarck and Eero Kontturi

09:45 - 10:15 **Organic Chemistry meets (Nano)cellulose: Up and Down of R&D**
Dieter Klemm, Institute of Organic and Macromolecular Chemistry, Friedrich-Schiller-University of Jena

10:15 - 10:45 **Cellulose I to cellulose II transition in solid state - the old parallel/antiparallel riddle**
Thomas Rosenau, Division of Chemistry of Renewable Resources, University of Natural Resources and Life Sciences

10:45 - 11:15 **Cellulose nanocomposite fibers: Possibilities and challenges**
Aji Mathew, Stockholm University

11:15 - 11:30 Coffee Break

YOUNG ACADEMIC FORUM 1 - ARE THE ENDS OF NANOCELLULOSE THE BEGINING?
Chairs: Benjamin Wilson and Apiradee Nicharat

11:30 - 11:50 **Precise modifications on the reducing ends of cellulose nanocrystals: An attempt for controlled assembly**
Ilari Filpponen, Aalto University

11:50 - 12:10 **Rheological studies of fibre suspensions: influence of fibre length and high-pressure homogenisation**
Jérôme Colson, Wolfgang Gindl-Altmutter, Institute of Wood Technology and Renewable Materials, University of Natural Resources and Life Sciences

12:10 - 12:30 **Reinforcement of polymers with a combination of cellulose nanocrystal types with different length distributions**
Janak Sapkota, Anuja Shirole, Christoph Weder, E. Johan Foster, Adolphe Merkle Institute, University of Fribourg

12:30 - 12:50 **Nanocomposites Based on Nanocellulose and Carbon Nanotubes**
Alireza Hajian, Lars A. Berglund, Wallenberg Wood Science Center, KTH Royal Institute of Technology

12:50 - 14:00 Lunch

PROFESSOR FORUM 2 - WHAT ABOUT SURFACE CHEMISTRY OF NANOCELLULOSE?
Chairs: Thomas Rosenau and Dieter Klemm

14:00 - 14:30 **First steps into nanocellulose surface chemistry: why doesn't it just work?!**
Wim Thielemans, KU Leuven

14:30 - 15:00 **Unexpected differences in reactivity of inorganic species towards nanocellulose**
Richard Olsson, KTH Royal Institute of Technology

15:00 - 15:30 **Nanocellulose: formulation-composition 2-D emulsion maps**
Orlando Rojas, Aalto University

15:30 - 16:00 **Polydispersity and assembling phenomena of native and dye-labelled nanocellulose**
Vanja Kokol, University of Maribor

16:00 - 16:15	Coffee Break
	<u>YOUNG ACADEMIC FORUM 2 - NANOCELLULOSE CHEMISTRY AND PHYSICS</u> <i>Chairs: Andreas Mautner and Jérôme Colson</i>
16:15 - 16:35	Modified xylan as CNF film softener - promising materials? <i>Tekla Tammelin, VTT Technical Research Centre of Finland</i>
16:35 - 16:55	Effect of Preparation Method on NFC-TEMPO Coating Morphology <i>Benjamin Wilson, Kirsi Yliniemi, Hua Jin, Tiia-Maria Tenhune, Marie Gestranus, Matti Putkonen, Tekla Tammelin, Maarit Karppinen, Lasse Murtomäki, Eero Kontturi, Aalto University</i>
16:55 - 17:15	TEMPO-modified cellulose nanocrystal dispersion <i>Reeta Salminen, Jessie Peyre, Timo Pääkkönen, Mehedi Reza, Benjamin Wilson, Eero Kontturi, Aalto University</i>
17:15 - 17:30	Poster introduction - 60 second quick shots: Why should you look at our posters? <i>Marta Fortea Verdejo, Nurul Ain Mohd Kamal, Wan Mohd Fazli Wan Nawawi, Martin Hervy, Siti Rosminah Shamsuddin, Andreas Mautner, Min Tang, Tal Ben Shalom, Katri Kontturir, Marco Beaumont</i>
17:30 - 18:30	<u>KNOWLEDGE TRANSFER FORUM 1</u> Anton Paar, Krüss, Surface Measurement Systems
18:30 - 19:30	POSTERS WITH PRE-DINNER DRINKS
19:30	CONFERENCE DINNER (leaving from conference at 19:30) <i>Fischerbräu Erste Wiener Gasthof-Brauerei (Dinner starts at 20:00)</i>

Monday 28th September 2015

09:00 - 09:45	<u>KNOWLEDGE TRANSFER FORUM 2</u> Anton Paar, Krüss, Surface Measurement Systems
	<u>PROFESSOR FORUM 3 - WHAT CAN WE DO WITH (NANO)CELLULOSE FOR COMPOSITE APPLICATIONS?</u> <i>Chairs: Wim Thielemans and Vanja Kokol</i>
09:45 - 10:15	Binderless biocomposites from nanofibrillated cellulose <i>Ton Peijs, Queen Mary University</i>
10:15 - 10:45	Nanocellulose in Polymer Matrices <i>Mikael Hedenqvist, KTH Royal Institute of Technology</i>
10:45 - 11:15	Do and Don'ts in wood/paper-polymer compounding <i>Rupert Wimmer, Institute for Natural Materials Technology, University of Natural Resources and Life Sciences</i>
11:15 - 11:30	Coffee Break
	<u>YOUNG ACADEMIC FORUM 3 - APPLICATIONS OF NANOCELLULOSE</u> <i>Chairs: Illari Filpponen and Reeta Salminen</i>
11:30 - 11:50	Affibody-functionalized bacterial cellulose tubes for biofiltration applications <i>Hannes Orelma, Luis O. Morales, Leena-Sisko Johansson, Ingrid C. Hoeger, Ilari Filpponen, Cristina Castro, Janne Laine, Orlando Rojas, Aalto University</i>
11:50 - 12:10	Nanocellulose/nanoparticles composite nanopaper membranes for improving water filtration performance <i>Jessica Laj, Andreas Mautner, Alexander Bismarck, Kang Li, Imperial College London</i>
12:10 - 12:30	Application potential of nanocellulose in the wood industry <i>Stefan Veigel, Michael Obersriebnig, Stefan Pinkl, Eva-Marieke Lems, Wolfgang Gindl-Altmatter, Institute of Wood Technology and Natural Materials, University of Natural Resources and Life Sciences</i>

12:30 - 12:50	Fire-retardant hybrid foams based on nanoclay and cellulose nanofibres <i>Lilian Medina, Lars Berglund, Wallenberg Wood Science Center, KTH Royal Institute of Technology</i>
12:50 - 13:10	Melt-mixed cellulose nanocrystal based nanocomposites for thermally-activated shape memory polymer <i>Apiradee Nicharat, E. Johan Foster, Christoph Weder, Adolphe Merkle Institute, University of Fribourg</i>
13:10 - 14:15	Lunch
EDITOR FORUM	
14:15 - 15:00	<i>Prof Ton Peijs (Nanocomposites), Prof Steve Eichhorn (Journal of Materials Science), Prof Wim Thielemans (Industrial Crops and Products), Prof Alexander Bismarck (Reactive and Functional Polymers), Prof Thomas Rosenau (Holzforschung)</i>
15:00 - 15:15	Coffee Break
PROFESSOR FORUM 4 - ORIENTING AND ASSEMBLING NANOCELLULOSE - CAN IT BE DONE? <i>Chairs: Ton Peijs and Mikael Hedenqvist</i>	
15:15 - 15:45	Unexpected orientations of cellulose nanocrystals - do they really do that? <i>Steve Eichhorn, University of Exeter</i>
15:45 - 16:15	How (not) to introduce preferred orientation into MFC and other complicated stories <i>Wolfgang Gindl-Altmatter, Institute of Wood Technology and Natural Materials, University of Natural Resources and Life Sciences</i>
16:15 - 16:45	TEMPO-mediated oxidation of microcrystalline cellulose should lead to highly charged cellulose nanocrystals - but it does not really <i>Eero Kontturi, Aalto University</i>
16:45 - 17:15	Nanocellulose research – “Excellent results but still nothing striking in the market” <i>Tanja Zimmermann, EMPA Switzerland</i>
17:15 - 17:30	CLOSING REMARKS - WHERE DO WE GO FROM HERE? <i>Alexander Bismarck, Koon-Yang Lee, Jonny Blaker, Eero Kontturi and Andreas Mautner</i>

Our sponsors

